



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/098,580

03/15/2002

Carl G. DeMarcken

09765-014002

6894

26161 7590 07/26/2007  
FISH & RICHARDSON PC  
P.O. BOX 1022  
MINNEAPOLIS, MN 55440-1022

EXAMINER

GILLIGAN, CHRISTOPHER L

ART UNIT

PAPER NUMBER

3626

MAIL DATE

DELIVERY MODE

07/26/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/098,580	<b>Applicant(s)</b> DEMARCKEN ET AL.	
	<b>Examiner</b> Luke Gilligan	<b>Art Unit</b> 3626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 5/9/07.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 28-48 and 56-82 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 28-48 and 56-82 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

Art Unit: 3626

***Election/Restrictions***

1. Applicant's election without traverse of claims 28-48 in the reply filed on 5/9/07 is acknowledged.

***Response to Amendment***

2. In the amendment filed 5/9/07, the following has occurred: claims 28, 29, 31-35, and 37 have been amended, claims 49-55 have been canceled, and claims 56-82 have been added. Now, claims 28-48 and 56-82 are presented for examination.

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:  
  
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
4. Claims 28-48 and 56-82 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
5. Claims 28 recites the phrase "determining whether at least some fields...sufficiently match..." It is unclear what level of matching is required fields to "sufficiently match" For the purposes of applying art, the Examiner will disregard the term "sufficiently."
6. Claims 56 and 71 recite a similar limitation and are rejected for the same reasoning.
7. Claims 29-48, 57-70, and 72-82 are rejected for the same reasons as given above based upon dependency.

***Claim Rejections - 35 USC § 103***

Art Unit: 3626

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 28-48 and 56-82 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bailis et al., U.S. Patent No. 5,999,946.

10. As per claim 28, Bailis et al. teach a method of providing a predicted answer in response to a query from a user, the method comprising: retrieving a stored query from a cache that stores queries and answers to queries stored from previously completed queries sent to the system (see column 4, lines 47-49); determining whether at least some fields in the stored query match corresponding fields in the user's query and retrieving an answer corresponding to the stored query from the cache (see column 4, lines 55-58); determining whether the retrieved answer is not stale (see column 4, lines 50-54); and if the retrieved answer is not stale, returning the retrieved answer as the predicted answer to the user's query (see column 4, lines 55-58). Bailis et al. do not expressly teach said system as an availability system. However the specific data that is being queried does not patentably distinguish the claimed method because such data is non-functional descriptive material. It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the querying of Bailis et al. to any type of commercial database engine (see column 4, lines 15-17), such as that of an airline seat availability system. One of ordinary skill in the art at the time the invention was made would have been motivated to apply the querying as such for the purpose of performing large scale searches more efficiently as suggested by Bailis et al. (see column 1, lines 9-10).

11. As per claim 29, Bailis et al. teach the method of claim 28 as described above. Bailis et al. further teaches storing queries and answers from previously completed queries in the cache

Art Unit: 3626

(see column 4, lines 47-49). Bailis et al. do not expressly teach storing one or more query fields for airline name, flight number, origination, destination, date of query, traveler nationality, point of purchase, frequent flyer status and seller data. However these differences are only found in the non-functional data stored in the database. Data identifying airline name, flight number, origination, destination, date of query, traveler nationality, point of purchase, frequent flyer status and seller data is not functionally related to the substrate of the method. Thus, this descriptive material will not distinguish the claimed invention from the prior art in terms of patentability. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to store any data in the database of the method of Bailis et al. because such data does not functionally relate to the substrate of the method and merely labeling the data differently from that in the prior art would have been an obvious matter of design choice.

12. As per claim 30, Bailis et al. teach the method of claim 28 as described above. Bailis et al. do not expressly teach storing one or more answer fields for booking codes and booking counts and assigning a data parameter to the stored answer wherein assigning includes one or more parameters for time, date, source and user characteristics. However these differences are only found in the non-functional data stored in the database. Data identifying airline name, flight number, origination, destination, date of query, traveler nationality, point of purchase, frequent flyer status and seller data is not functionally related to the substrate of the method. Thus, this descriptive material will not distinguish the claimed invention from the prior art in terms of patentability. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to store any data in the database of the method of Bailis et al. because such data does not functionally relate to the substrate of the method and merely

Art Unit: 3626

labeling the data differently from that in the prior art would have been an obvious matter of design choice.

13. As per claim 31, Bailis et al. teach the method of claim 28 as described above, wherein determining whether at least some of the fields of a stored query matches the user's query further comprises: matching the query fields of the query to the query fields stored in the cache database (see column 4, lines 55-58). Bailis et al. do not expressly teach parsing the query into query fields. Official notice is taken that parsing data is old and well known in the art. It would have been obvious to one of ordinary skill in the art at the time the invention was made to parse the query for the purpose of convenient prediction analysis.

14. As per claim 32, Bailis et al. teach the method of claim 28 as described above, wherein matching further comprises exactly matching the query fields in the query to the query fields of a query stored in the cache (see column 4, lines 55-58).

15. As per claim 33, Bailis et al. teach the method of claim 28 as described above, wherein matching further comprises: approximately matching the query fields in the query to at least some of the query fields of a query stored in the cache (see column 4, lines 55-58).

16. As per claim 34, Bailis et al. teach the method of claim 28 as described above. Bailis et al. further teach if the retrieved answer is stale, sending an actual query to the system, returning the actual answer received from the system to the user (see column 4, lines 8-14); and storing the actual answer and query in the cache database (see column 4, lines 47-49).

17. As per claim 35, Bailis et al. teach the method of claim 30 as described above, wherein determining whether the retrieved answer is not stale further comprises: retrieving a time stamp parameter corresponding to the retrieved answer, determining a threshold time, and comparing the time stamp parameter to the threshold time (see column 4, lines 50-54).

Art Unit: 3626

18. As per claim 36, Bailis et al. teach the method of claim 35 as described above. Bailis et al. do not expressly teach determining a threshold time according to one or more query factors, said query factors including a date of flight, an origin of a flight, a destination of a flight, a time of flight, a day of week per flight, a size of the airplane, an actual answer to a completed query that matches the seat availability query and an actual answer to a completed query that does not match the seat availability query. However these differences are only found in the non-functional data stored in the database. Data identifying a date of flight, an origin of a flight, a destination of a flight, a time of flight, a day of week per flight, a size of the airplane, an actual answer to a completed query that matches the seat availability query and an actual answer to a completed query that does not match the seat availability query is not functionally related to the substrate of the method. Thus, this descriptive material will not distinguish the claimed invention from the prior art in terms of patentability. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to store any data in the database of the method of Bailis et al. because such data does not functionally relate to the substrate of the method and merely labeling the data differently from that in the prior art would have been an obvious matter of design choice.

19. As per claim 37, Bailis et al. teach the method of claim 28 as described above, wherein returning the retrieved answer as the predicted answer to the user's query further comprises: determining that the retrieved answer from the cache database is stale (see column 4, lines 50-54). Bailis et al. do not expressly teach including a confidence factor corresponding to the predicted answer. However this difference is only found in the non-functional data stored in the database. Data identifying a confidence factor is not functionally related to the substrate of the method. Thus, this descriptive material will not distinguish the claimed invention from the prior art in terms of patentability. Therefore, it would have been obvious to a person of ordinary skill in

Art Unit: 3626

the art at the time the invention was made to store any data in the database of the method of Bailis et al. because such data does not functionally relate to the substrate of the method and merely labeling the data differently from that in the prior art would have been an obvious matter of design choice.

20. As per claim 38, Bailis et al. teach the method of claim 37 as described above. Bailis et al do not expressly teach a confidence factor corresponding to the predicted answer. However this difference is only found in the non-functional data stored in the database. Data identifying a confidence factor is not functionally related to the substrate of the method. Thus, this descriptive material will not distinguish the claimed invention from the prior art in terms of patentability. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to store any data in the database of the method of Bailis et al. because such data does not functionally relate to the substrate of the method and merely labeling the data differently from that in the prior art would have been an obvious matter of design choice.

21. As per claim 39, Bailis et al. teach the method of claim 37 as described above. Bailis et al. do not expressly teach a confidence factor corresponding to the predicted answer. However this difference is only found in the non-functional data stored in the database. Data identifying a confidence factor is not functionally related to the substrate of the method. Thus, this descriptive material will not distinguish the claimed invention from the prior art in terms of patentability. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to store any data in the database of the method of Bailis et al. because such data does not functionally relate to the substrate of the method and merely labeling the data differently from that in the prior art would have been an obvious matter of design choice.

22. As per claim 40, Bailis et al. teach the method of claim 37 as described above. Bailis et al. do not expressly teach a confidence factor corresponding to the predicted answer. However



Art Unit: 3626

this difference is only found in the non-functional data stored in the database. Data identifying a confidence factor is not functionally related to the substrate of the method. Thus, this descriptive material will not distinguish the claimed invention from the prior art in terms of patentability.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to store any data in the database of the method of Bailis et al. because such data does not functionally relate to the substrate of the method and merely labeling the data differently from that in the prior art would have been an obvious matter of design choice.

23. As per claim 41, Bailis et al. teach the method of claim 37 as described above. Bailis et al. do not expressly teach a confidence factor corresponding to the predicted answer. However this difference is only found in the non-functional data stored in the database. Data identifying a confidence factor is not functionally related to the substrate of the method. Thus, this descriptive material will not distinguish the claimed invention from the prior art in terms of patentability.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to store any data in the database of the method of Bailis et al. because such data does not functionally relate to the substrate of the method and merely labeling the data differently from that in the prior art would have been an obvious matter of design choice.

24. As per claim 42, Bailis et al. teach the method of claim 37 as described above. Bailis et al. do not expressly teach a confidence factor corresponding to the predicted answer. However this difference is only found in the non-functional data stored in the database. Data identifying a confidence factor is not functionally related to the substrate of the method. Thus, this descriptive material will not distinguish the claimed invention from the prior art in terms of patentability.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to store any data in the database of the method of Bailis et al. because

Art Unit: 3626

such data does not functionally relate to the substrate of the method and merely labeling the data differently from that in the prior art would have been an obvious matter of design choice.

25. As per claim 43, Bailis et al. teach the method of claim 42 as described above. Bailis et al. do not expressly teach a confidence factor corresponding to the predicted answer. However this difference is only found in the non-functional data stored in the database. Data identifying a confidence factor is not functionally related to the substrate of the method. Thus, this descriptive material will not distinguish the claimed invention from the prior art in terms of patentability.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to store any data in the database of the method of Bailis et al. because such data does not functionally relate to the substrate of the method and merely labeling the data differently from that in the prior art would have been an obvious matter of design choice.

26. As per claim 44, Bailis et al. teach the method of claim 43 as described above. Bailis et al. do not expressly teach a confidence factor corresponding to the predicted answer. However this difference is only found in the non-functional data stored in the database. Data identifying a confidence factor is not functionally related to the substrate of the method. Thus, this descriptive material will not distinguish the claimed invention from the prior art in terms of patentability.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to store any data in the database of the method of Bailis et al. because such data does not functionally relate to the substrate of the method and merely labeling the data differently from that in the prior art would have been an obvious matter of design choice.

27. As per claim 45, Bailis et al. teach the method of claim 42 as described above, wherein predicting produces a confidence factor according to a model using as a factor in the model a threshold time, which if lapsed, indicates that the retrieved answer is considered stale (see column 4, lines 50-54).

Art Unit: 3626

28. As per claim 46, Bailis et al. teach the method of claim 45 as described above, wherein the threshold time varies over the lapsing of time (see column 4, lines 62-65).

29. As per claim 47, Bailis et al. teach the method of claim 45 as described above, wherein the threshold time is a pre-set time (see column 4, lines 53-54).

30. As per claim 48, Bailis et al. teach the method of claim 45 as described above, wherein the threshold time is a pre-set time determined for each given system (see column 4, lines 53-54).

31. Claims 56-82 recite substantially similar system and computer program product limitations to those already addressed above in method claims 28-48 and, as such, are rejected for similar reasons as given above.

### ***Conclusion***


32. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Luke Gilligan whose telephone number is (571) 272-6770. The examiner can normally be reached on Monday-Friday 8am-5:30pm.

33. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Thomas can be reached on (571) 272-6776. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3626

34. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

7/22/07

  
C. LUKE GILLIGAN  
PRIMARY EXAMINER  
TECHNOLOGY CENTER 3600